

REMARKS

In this paper, claims 1 and 6 are currently amended. After entry of the above amendment, claims 1-20 are pending.

The applicant appreciates the indicated allowability of claims 6-20 if rewritten in independent form. Claim 6 has been rewritten to be in independent form, so it is believed that claims 6-20 are now allowable.

Claims 1-5 were rejected under 35 U.S.C. §102(b) as being anticipated by Lai (US 5,570,760). This basis for rejection is respectfully traversed.

Claim 1 has been amended to clarify that the brake force control mechanism is adapted to receive a braking force from a braking device, and that the brake force adjusting mechanism communicates the braking force from the braking device to the hub shell.

Lai discloses a hub brake for bicycles wherein a brake block (10) engages a conical recess (301) in a hub (30) to apply a braking force to hub (30). A driving screw (21) controlled by a control arm (24) is used to press brake block (10) into conical recess (301). An adjusting nut (23) is used to set the initial position of driving screw (21), and hence brake block (10), more toward conical recess (301) to accommodate wear of brake block (10). In any event, brake block (10) directly applies braking force to hub (30). Adjusting nut (23) does not function as an intermediary in the transmission of braking force from a braking device (brake block (10)) to a hub shell (hub (30)) as does the brake force adjusting mechanism recited in amended claim 1.

Claims 1-5 were rejected under 35 U.S.C. §102(e) as being anticipated by Liu (US 2003/0057032). This basis for rejection is respectfully traversed.

Liu discloses a bicycle brake wherein brake blocks (3) expand radially outwardly to contact the inner peripheral surface of a brake drum (1) to apply a braking force to brake drum (1). This is accomplished by rotating a disc (91) that carries abutting sections (941) of a plurality of linking members (94). The abutting sections (941) press against radially decreasing sections of brake blocks

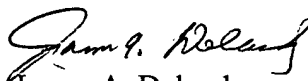
(3) to force brake blocks (3) radially outwardly. Radially inward toothed faces (943) of linking members (94) mesh with an engaging gear (932) of an equalizer (93). Equalizer (93) includes radially outwardly extending projections (931) that engage radially inwardly extending projections (922) of a pressure adjustment ring (92) through corresponding springs (6).

In operation, disc (91) is rotated so that abutting sections (941) of linking members (94) press against the radially decreasing sections of brake blocks (3) as noted above so that brake blocks (3) expand radially outwardly to contact the inner peripheral surface of brake drum (1) and produce a first stage braking effect. When disc (91) is further rotated, the reaction force between abutting sections (941) and brake blocks (3) cause equalizer (93) to rotate against the force of springs (6) so that linking members (94) pivot and cause abutting sections (941) to further press brake blocks (3) outwardly to produce a second stage braking effect.

The preload of springs (6) may be adjusted by rotating pressure adjustment ring (91) using an angle setting pin (8) disposed in an adjustment hole (22) formed in a hub cover (2). As with Lai, brake blocks (3) directly apply braking force to brake drum (1). Angle setting pin (8) and pressure adjustment ring (91) do not function as intermediaries in the transmission of braking force from a braking device (brake blocks (3)) to a hub shell (brake drum (1)) as does the brake force adjusting mechanism recited in amended claim 1.

Accordingly, it is believed that the rejections under 35 U.S.C. §103 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

Respectfully submitted,

  
James A. Deland  
Reg. No. 31,242

DELAND LAW OFFICE  
P.O. Box 69  
Klamath River, California 96050  
(530) 465-2430